2011

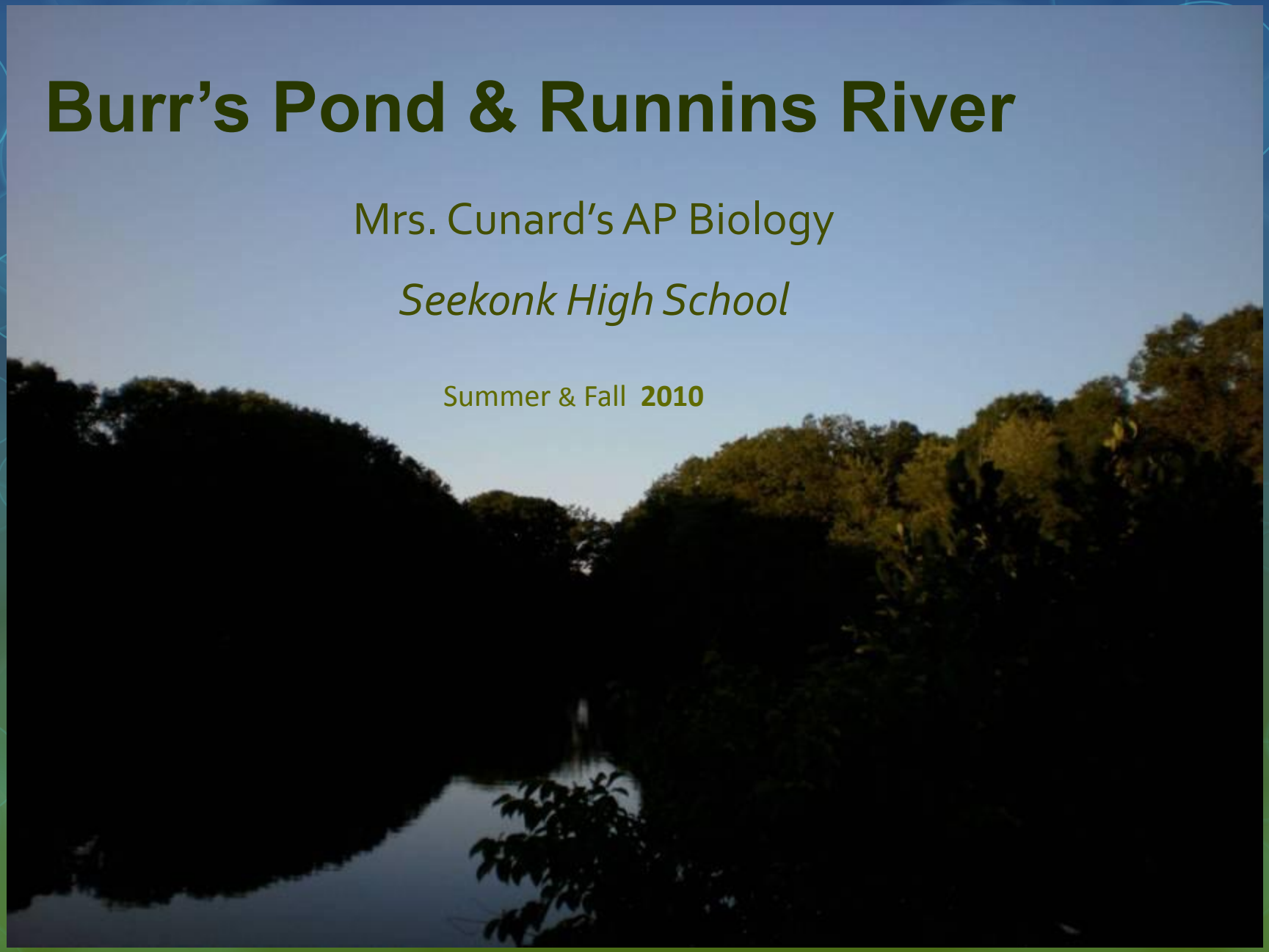
Burr's Pond and Runnins River Annual Watershed Survey, 2011

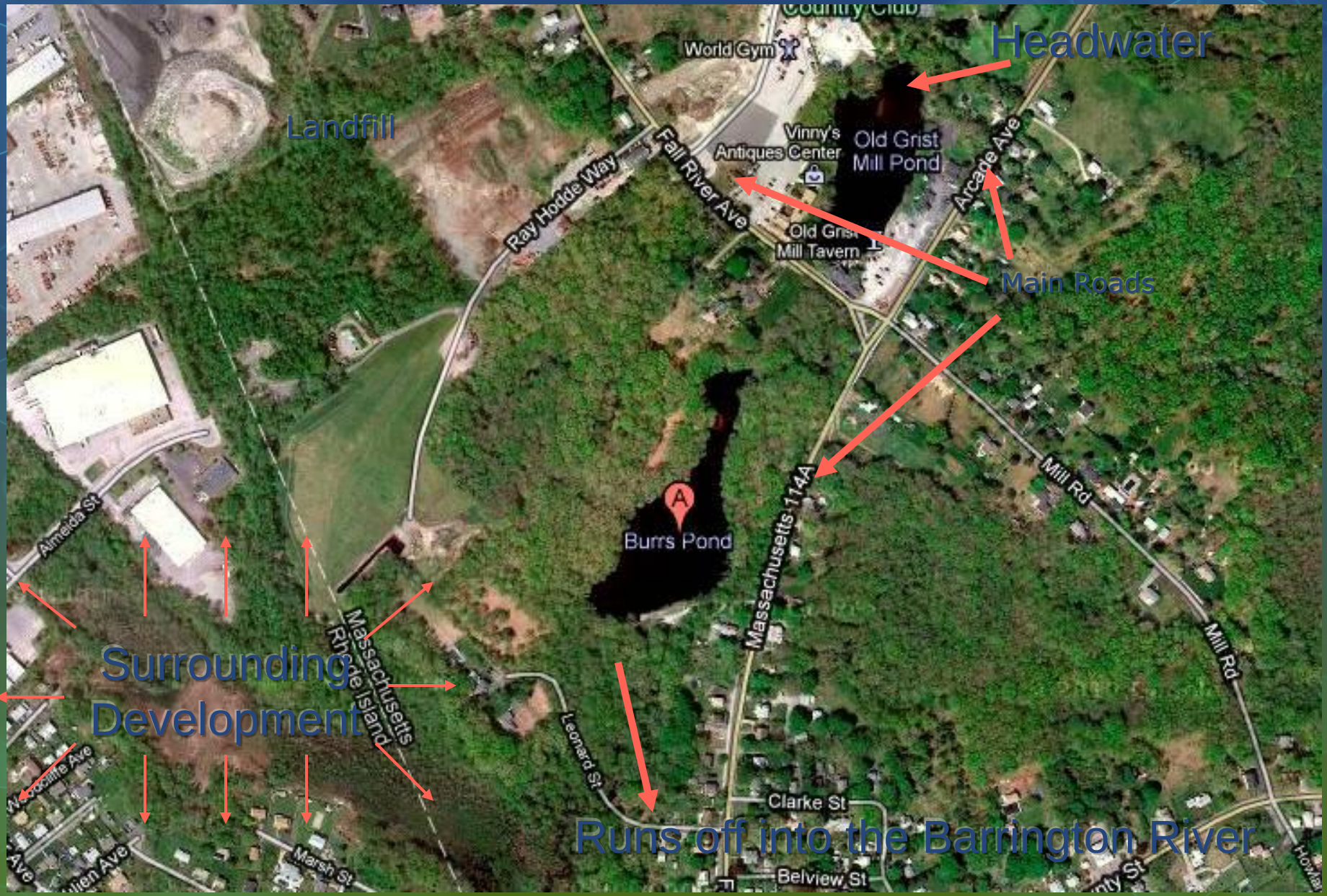
Burr's Pond & Runnins River

Mrs. Cunard's AP Biology

Seekonk High School

Summer & Fall **2010**




Headwater
Landfill
Main Roads
Surrounding Development
Runs off into the Barrington River
World Gym
Vinny's Antiques Center
Old Grist Mill Pond
Old Grist Mill Tavern
Ray Hodde Way
Fall River Ave
Arcade Ave
Burrs Pond
Massachusetts 114A
Mill Rd
Almeida St
Massachusetts Rhode Island
Leonard St
Clarke St
Belview St
Marsh St


Site A
Site B
Burrs Pond
Massachusetts 114A
Fall River Ave

Burr's Pond and Runnins River

- The area is part of the Edna Martin Wildlife Refuge, owned by the Seekonk Land Conservation Trust.
- The area is used by AP Biology students to study ecology.
- This year, dissolved oxygen levels and organisms native to the area were recorded.

Summer Project at Burr's Pond

- For the past 9 years, Seekonk High School AP Biology students have been taking summer trips down to Burr's Pond for research projects.
- Each student is given the duty of researching various aspects of pond life and the pond itself.

Summer Project at Burr's Pond

- Each student visited the pond 3-4 times & observations were made at each site about:
  - The plants and animals
  - Site description & weather
  - Relationships between different species
  - All observations were recorded in notebooks
  - Pictures were also taken throughout each visit.

The Field Trip to Burr's Pond

Students examining the pond and installing the probe. (above)

DO Probes borrowed

from Bridgewater State (right)

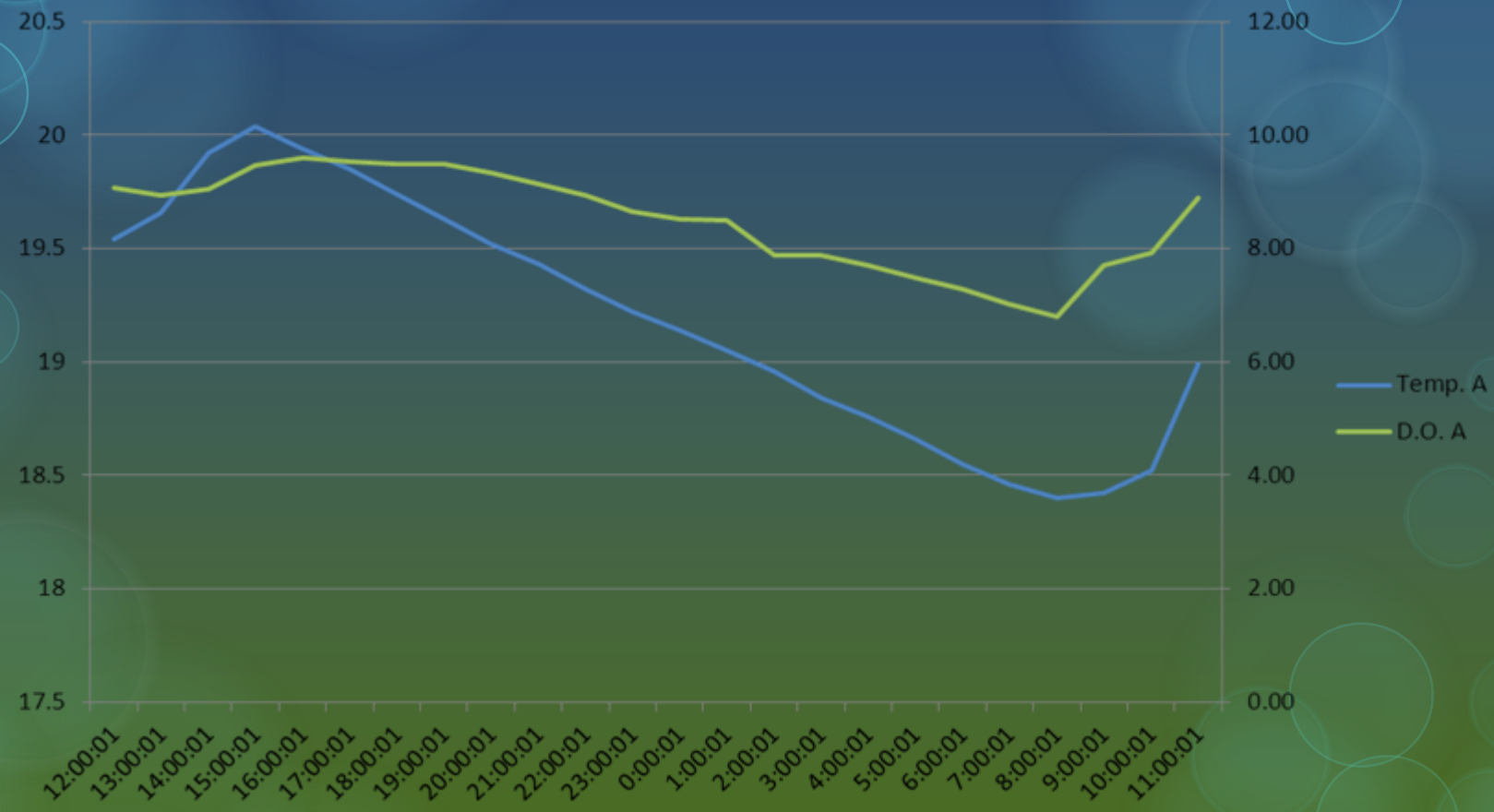
What is Dissolved Oxygen?

- Amount of O_2 (mg/L) present in a sample of water.
- Enters water by diffusion
- Affected by:
  - Sunlight
  - Plant life
  - Temperature
  - Rate of flow/movement of water

Why do We Study Watersheds?

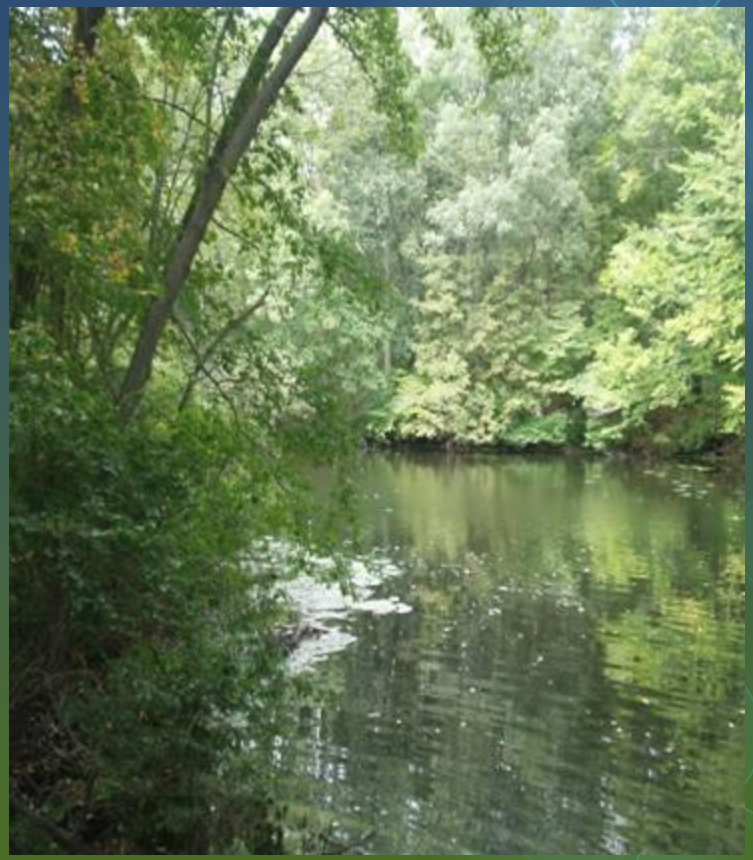
- All water in an area drains into the same waterway.
- Affects all the water we use in our daily lives
- Affected by the surrounding environment
  - Plant and animal life
  - manmade structures
  - chemicals used for treating roads, lawns, etc.
- Studying watersheds helps us better improve the quality of the water our lives depend on.

Temperature and Dissolved Oxygen Levels at Site A

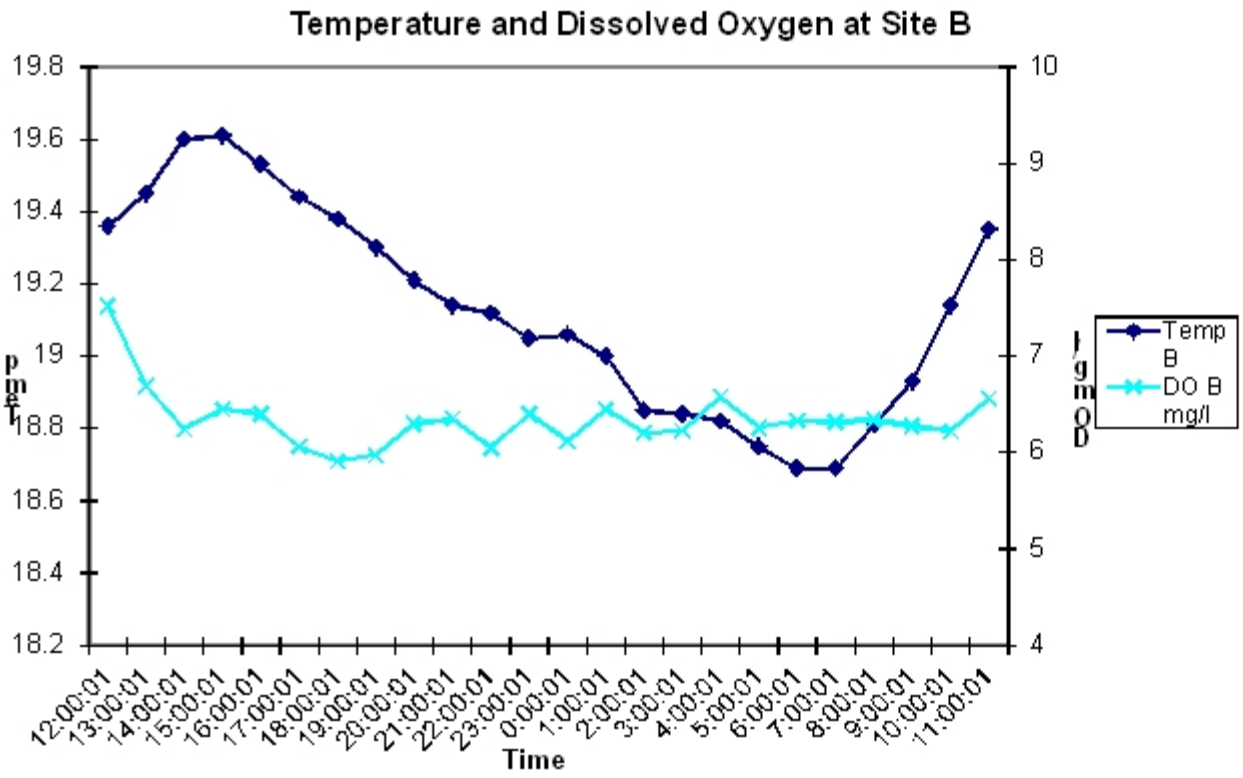


Factors Affecting Dissolved Oxygen at Site A

- Plant life in water
- Organisms inhabiting area
- Biological waste/high bacteria levels
- Depth of water
- Canopy of trees
- Light availability
- Temperature



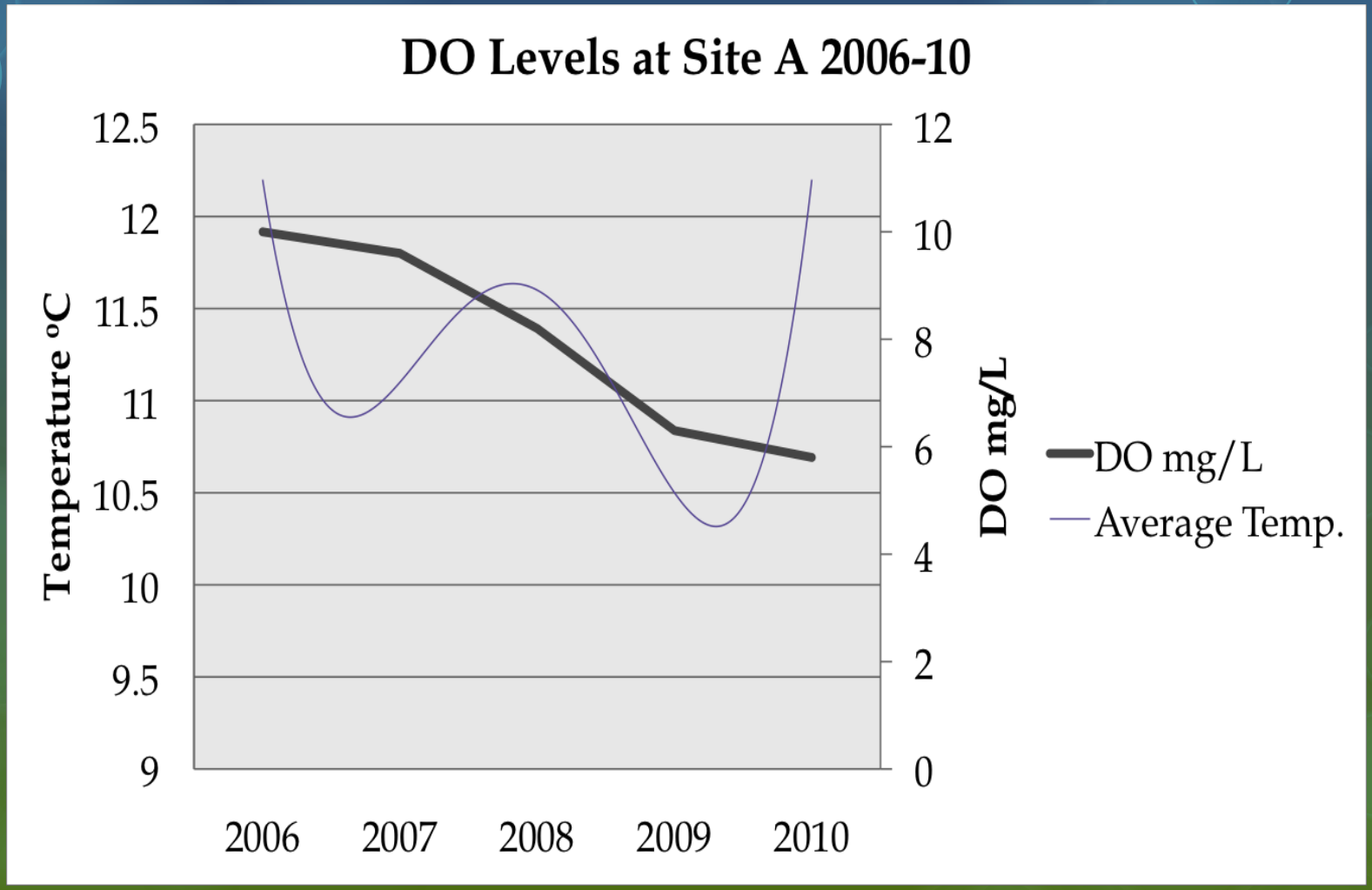
Factors Affecting Dissolved Oxygen at Site B



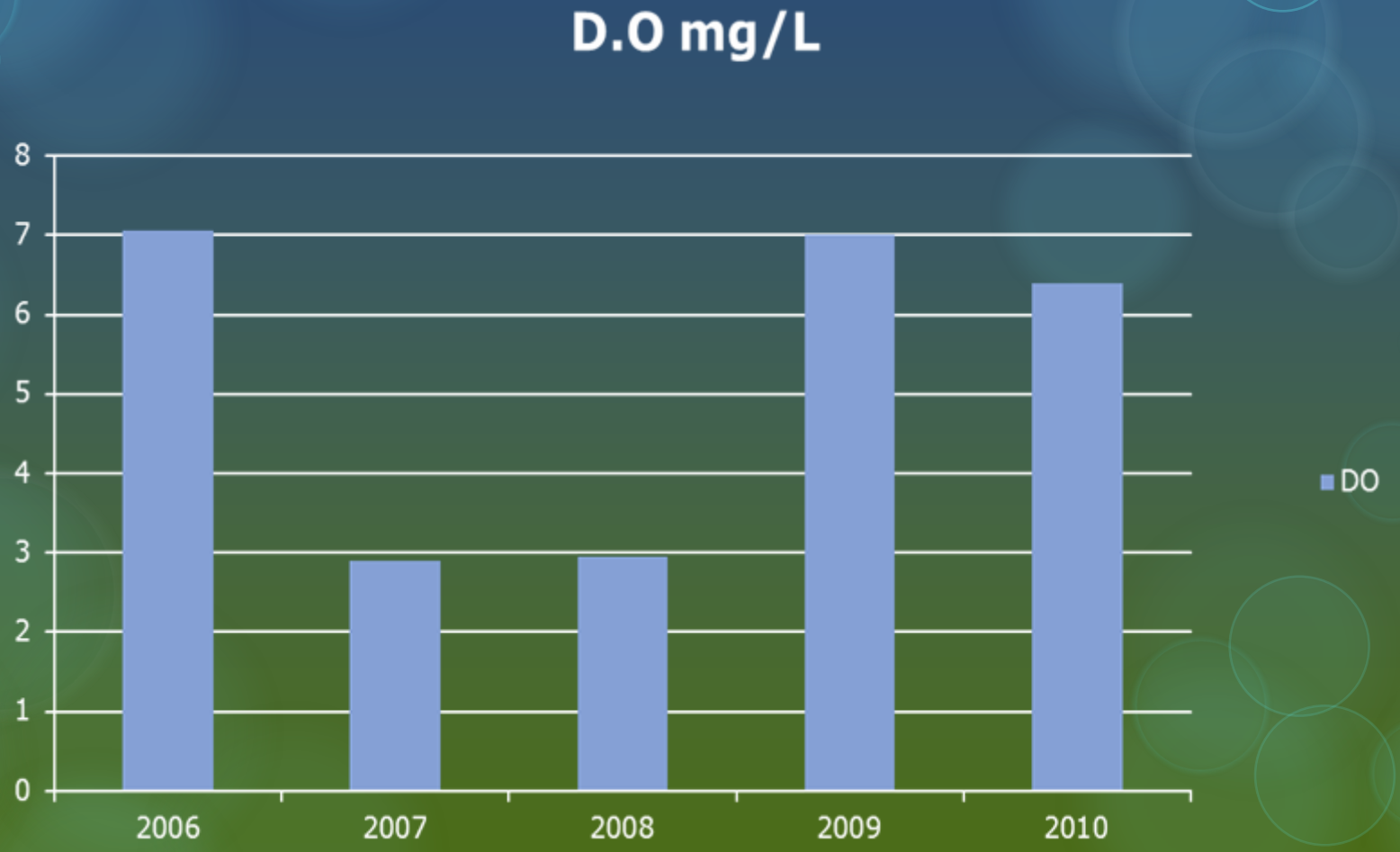
Factors:

- Temperature
- Sunlight
- Photosynthetic plants
- Stream Velocity

DO Levels at Site A 2006-10



Site B Dissolved Oxygen 2006-2010



Burr's Pond Conclusions

- The DO levels varied between the sites. Site A contained more DO than site B
- Site A was more open, allowing sunlight to reach the aquatic plant life.
- Site B had a denser canopy, lower water level & no aquatic plant life. The waterfall provided the DO.
- Site A contained a higher DO lever than Site B because of the aquatic plant life.

Thank You!!!

Thank you to:

Bridgewater State University

The Watershed Access Lab

Mrs. McGovern

Kim McCoy

Mrs. Cunard

The Seekonk Land Trust

for making this experience possible!